CLAIMS

1. A method of screening for agents which can regulate the activity of a human neuropeptide Y-like G protein-coupled receptor, comprising the steps of:

contacting a test compound with a polypeptide comprising an amino acid sequence which is at least about 50% identical to the amino acid sequence shown in SEQ ID NO:2; and

detecting binding of the test compound to the polypeptide, wherein a test compound which binds to the polypeptide is identified as a potential therapeutic agent for regulating activity of the human neuropeptide Y-like G protein-coupled receptor.

2. The method of claim 1 wherein the step of contacting is in a cell.

3. The method of claim 2 wherein the cell is *in vitro*.

4. The method of claim 1 wherein the step of contacting is in a cell-free system.

5. The method of claim 1 wherein the polypeptide comprises a detectable label.

6. The method of claim 1 wherein the test compound comprises a detectable label.

7. The method of claim 1 wherein the test compound displaces a labeled ligand which is bound to the polypeptide.

8. The method of claim 1 wherein the polypeptide is bound to a solid support.

9. The method of claim 1 wherein the test compound is bound to a solid support.

10. A method of screening for agents which regulate a biological activity of a human neuropeptide Y-like G protein-coupled receptor, comprising the steps of:

contacting a test compound with a polypeptide comprising an amino acid sequence which is at least about 50% identical to the amino acid sequence shown in SEQ ID NO:2; and

detecting a biological activity mediated by the polypeptide, wherein a test compound which increases the biological activity is identified as a potential therapeutic agent for increasing the biological activity of the human neuropeptide Y-like G protein-coupled receptor, and wherein a test compound which decreases the biological activity of

the polypeptide is identified as a potential therapeutic agent for decreasing the biological activity of the human neuropeptide Y-like G protein-coupled receptor.

11. The method of claim 10 wherein the step of contacting is in a cell.

12. The method of claim 11 wherein the cell is *in vitro*.

13. The method of claim 10 wherein the step of contacting is in a cell-free system.

14. The method of claim 10 wherein the biological activity is cyclic AMP formation.

15. The method of claim 10 wherein the biological activity is mobilization of intracellular calcium.

16. The method of claim 1 wherein the biological activity is phosphoinositide metabolism.

17. A method of screening for agents which regulate a biological activity of a human neuropeptide Y-like G protein-coupled receptor, comprising the steps of:

contacting a test compound with a product encoded by a polynucleotide which comprises a nucleotide sequence which is at least about 50% identical to the nucleotide sequence shown in SEQ ID NO:3; and

detecting binding of the test compound to the product, wherein a test compound which binds to the product is identified as a potential therapeutic agent for regulating the biological activity of the human neuropeptide Y-like G protein-coupled receptor.

18. The method of claim 17 wherein the product is a polypeptide.

19. The method of claim 17 wherein the product is RNA.

20. A method of reducing a biological activity of a human neuropeptide Y-like G protein-coupled receptor, comprising the step of:

contacting a cell with a reagent which specifically binds to a product encoded by a polynucleotide comprising a nucleotide sequence which is at least about 50% identical to the nucleotide sequence shown in SEQ ID NO:3, whereby the biological activity of the human neuropeptide Y-like G protein-coupled receptor is reduced.

21. The method of claim 20 wherein the product is a polypeptide.

22. The method of claim 21 wherein the reagent is an antibody.

23. The method of claim 20 wherein the product is RNA.

24. The method of claim 23 wherein the reagent is an antisense oligonucleotide.

25. The method of claim 23 wherein the reagent is a ribozyme.

26. The method of claim 20 wherein the cell is *in vitro*.

27. The method of claim 20 wherein the cell is *in vivo*.

28. A pharmaceutical composition, comprising:

a reagent which specifically binds to a product encoded by a polynucleotide comprising a nucleotide sequence which is at least about 50% identical to the nucleotide sequence shown in SEQ ID NO:3; and

a pharmaceutically acceptable carrier.

29. The pharmaceutical composition of claim 28 wherein the reagent is an antibody.

30. The pharmaceutical composition of claim 28 wherein the reagent is an antisense oligonucleotide.

31. The pharmaceutical composition of claim 28 wherein the reagent is a ribozyme.

32. An isolated and purified polynucleotide comprising the nucleotide sequence shown in SEQ ID NO:3.

33. An isolated and purified polypeptide comprising amino acid sequence shown in SEQ ID NO:2.

34. A preparation of antibodies which specifically bind to a polypeptide comprising the amino acid sequence shown in SEQ ID NO:2.

35. The preparation of claim 34, wherein the antibodies are monoclonal.

36. The preparation of claim 34, wherein the antibodies are polyclonal.

37. A method of preparing a polypeptide comprising the amino acid sequence shown in SEQ ID NO:2, comprising the steps of:

culturing a host cell comprising an expression construct encoding the polypeptide under conditions whereby the polypeptide is expressed; and

isolating the polypeptide from the host cell.

38. A transgenic animal comprising a human neuropeptide Y-like G protein-coupled receptor.

39. The transgenic animal of claim 38, wherein the human neuropeptide Y-like G protein-coupled receptor comprises an alteration in its coding sequence.

40. A host cell comprising the nucleotide sequence shown in SEQ ID NO:3.